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ABSTRACT

Designed to assist California policy and decision makers with planning to meet the future educational needs of limited-English speaking (LES) and non-English speaking (NES) students, this study was undertaken: (1) to describe and analyze the implementation of all areas of the legislatively required services to LES/NES children, and the structures which support those services, particularly in terms of instructional strategies, financial resources and utilization, teacher preparation, and district policies; (2) to relate these implementation factors with measures of program effectiveness through analysis of student achievement and the satisfaction of students, parents, teachers, aides, and administrators with the bilingual instructional services, and thus determine the relationship between program implementation and impact on children and others involved in the program, and (3) to analyze procedures for the state and local language census of LES/NES children and examine the instruments used for placement, including the materials and procedures used to train test administrators and in the reporting of results. Volume I of this final report contains the full narrative and the more important tables. Volume III contains the instruments, some technical explanatory materials and many of the complex tables not included in Volume I. (Author/RL)

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# EVALUATION OF CALIFORNIA'S EDUCATIONAL SERVICES TO LIMITED AND NON-ENGLISH SPEAKING STUDENTS

## VOLUME II: EXECUTIVE SUMMARY

## FINAL REPORT

Contract No. JLBC-78-1
December 1980

by

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David Walrath

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* * * * *

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*Volume I of this final report contains the full narrative and the more important tables. This Executive Summary is Volume II. Volume III contains the instruments, some technical explanatory materials, and many of the complex tables that although important, would have detracted from the narrative presentations. Except for the designated distribution from the contract, those desiring copies will be asked to reimburse Development Associates for the reproduction, binding, and postage.*

# INTRODUCTION

Under a contract with the Office of the Legislative Analyst of the California State Legislature, Development Associates, Inc., a private governmental and management consulting firm, conducted a 34 month evaluation study of California's educational services to limited and non-English speaking students. This research project was initiated on March 1, 1978, in response to the legislative mandate of AB 65. Designed to assist policy and decision makers with planning to meet the future needs of LES/NES children, the study was undertaken for the following purposes:

1. To describe and analyze the implementation of all areas of the legislatively required services to limited and non-English speaking children, as contained in AB 1329, and the structures which support those services, particularly in terms of instructional strategies, financial resources and utilization, teacher preparation, and district policies.

2. To relate these implementation factors with measures of program effectiveness through analysis of student achievement and the satisfaction of students, parents, teachers, aides, and administrators with the bilingual instructional services, and thus determine the relationship between program implementation and impact on children and others involved in the program.

3. To analyze the procedures for the state and local language census of limited and non-English speaking children and examine the instruments used for placement, including the materials and procedures used to train test administrators and the reporting of the results.

In sum, the study sought to provide information on the relative effectiveness of different bilingual education approaches and to identify key program characteristics associated with successful programs. The study was focused on the identification of successful program implementation characteristics in order to provide the legislators and program planners with the information needed to improve the overall quality of services to limited and non-English speaking students in California. The research was pursued with the specific understanding that the design and final products of the evaluation would be developed so as to address the information needs of the California State Legislature, the Governor, the State Department of Education, and the Superintendent of Public Instruction, since these decision makers play a crucial role with respect to the development and direction of bilingual education in California. The State Department of Education assisted materially with data and information but the contract relationship and the control of the research was with the Office of the Legislative Analyst.

On September 18, 1978, the California Legislature enacted Chapter 848, Statutes of 1978 (AB 3470). One of the components of that bill involved the census procedures for determining the numbers of LES/NES students in a district. As that legislation changed the requirements of the language census from dominance in AB 65 to proficiency measurement, further research work on the census procedures was modified as of September 13, 1978, as a result of an agreement with the Office of the Legislative Analyst. Subsequently, an additional element was added to the research effort, namely the promising instructional practices substudy. This study involved a literature review of promising instructional practices and implementation characteristics of programs in order to empirically validate bilingual teaching practices.

This document, *Volume II, Executive Summary* of the final report, is a condensed version of *Volume I, Narrative Report*. It summarizes the research design, findings, and recommendations of the entire study. Recommendations and policy issues for consideration by state authorities and decision makers follow each report summary.

Each of the succeeding sections contains many details that differentiate among the many variables utilized in the complete study. As an orientation to the voluminous material, the most important findings are outlined at this point. They should provide valuable guidance to the study of the research design of each of the substudies, the full descriptions of the variables and their results, and the subsequent recommendations and statements of policy issues.

*Language Assessment:* The examination of the different assessment procedures used across the years and the numbers of limited and non-English speaking pupils identified did not account for the variations; increasing numbers of LES/NES pupils in the state, the acquisition of English by some pupils in the schools, together with the different assessment procedures obscured relationships between the LES/NES counts and the procedures. Expert examination of the Home Language Survey showed some improvements that could be made in some of the many language versions but the survey generally appeared to function adequately. The Observation Assessment Instrument, used to classify students as fluent, limited, and non-English speaking for placement purposes at the beginning of the present study, although described as determining dominance, was judged by test design specialists to be primarily an examination of proficiency. Some problems were found with some of the language versions and recommendations for their improvement were made.

The proficiency instruments mandated later and specified after intense study by a committee of experts and the State Department of Education, were used for entering students and to update the classifications of others during the final year of the research. Few practitioner criticisms were voiced during the interviews;

the school staff members generally agreed with the overall classification produced by all four instruments. Further examinations into the psychometric properties of the four, carried out again by a special study panel and the State Department of Education, led to a reduction of the four instruments to two for future years. A consistent recommendation of the district and school personnel was that the tests should not be changed frequently since such changes necessitated the acquisition of the instruments, substantial training of the administering personnel, and additional time to make the assessments. The continuing need to assure the highest reliability and validity of the assessment instruments, however, makes it difficult to adhere to this recommendation.

*Instructional Components Literature:* The intensive search of the literature about instructional practices in bilingual education and the teaching of English as a second language resulted in summary descriptions of the materials according to the information they provided on models, approaches, strategies, processes, methods, and techniques. The confusion about these terms in the literature made discrimination among them difficult at best and at other times impossible. The small amount of specific information on these educational components was often comingled with philosophical and theoretical arguments, making assessment of their value problematic.

The second guideline to the study of the available literature was that emphasis was to be placed on those materials that included some evidence of the effectiveness of the practice described. The information on effectiveness was almost always in the form of a general judgement and few data were in evidence. The few objective studies encountered had found achievement differences for the amount of language structure employed, interaction between instructors and pupils, and the proportion of time utilized in learning activities as compared to management of the pupils. The literature on teaching English as a second language usually contained much more practical information on instructional practices than did that on bilingual education. A lengthy bibliography on the most useful literature was provided from this search.

*Pupils, Programs, and Instruction:* The collection of pupil characteristics and the descriptions of the programs and the instructional practices obtained from the classroom observations showed extreme variations in the classrooms in the sample. The data on the first language of the pupils, English fluency, socioeconomics, and student status demonstrated that generalizations about "bilingual education" or English as a second language programs were likely to be so contaminated from differing proportions of these that they would have little value. The observations also showed that most schools had several different programs in operation at the same time and within the same grade.

Further, the implementation of the programs varied so much, as gauged by the measurement of the instructional practices through the observations, that in some aspects, there were more differences within programs than between them. A wide range of implementation

was found in the groupings used in the instruction, instructor/pupil interaction, structure of the language presentations, instructor language proficiency, language modeling activities, and the exposure to learning. The sequence in which the students had learned reading in the primary language and English varied markedly within the sample. Mixing the primary language and English was more common than the literature had indicated.

*Satisfaction:* A high proportion of the sample students, program teachers and aides, non-program teachers, resource teachers, administrators, parents, and community members saw the acquisition of two or more languages as important, agreed that the schools generally were achieving their goals, and that the bilingual legislation was satisfactory. Notable exceptions on the legislation were the American Indians and members of some other minor language groups who felt that the acts should include some provisions for the revitalization of languages that were being lost. The second most important criticism was that the implementation of bilingual education did not always meet the requirements in the law.

Pupil progress in the classes, the way the classes were taught, and the teaching of cultures were viewed with differing amounts of satisfaction, although generally they were judged as satisfactory. Non-program teachers, monolingual Spanish speaking parents, and some community members were less likely to be satisfied than were the other groups. Many of the respondents were not well satisfied with the community participation, citing small attendance at meetings, that a few people did most of the work, and that some ethnic groups, especially Asians, did not become involved.

The respondents were in substantial agreement about the enrollment of the students in the program; they preferred participation until the pupils were fluent in English. Speakers of Spanish and the languages of China were more likely to choose either the alternative of until fluent in English and the primary language or all twelve years of school. A very high proportion of the interviewees preferred that the instruction be 25% in the primary language and 75% in English. A half and half proportion was chosen by many students and parents who had recently arrived in the United States and who spoke little English. Non-program teachers and some community members chose shorter periods of enrollment and less primary language. An important finding was that few of the respondents had ever been asked their opinions on bilingual education. They thought that it was important to seek client information on the programs.

*Pupil Achievement:* The pupil characteristics of English fluency, socioeconomics, and student status had the most powerful effects on the English achievement scores. Asian language students tended to score higher than the other groups. The means for one program, that in which mostly the primary language was taught, were lower than the others; relatively minor differences were found among the others and those differences were generally explainable by the varying compositions of the students in those programs. Facilitation, the use of the primary language to explain terms and concepts and in classroom management, was characterized as having lower student

means that did those that actually taught the primary language. Students who learned English reading first or who learned to read in English and the primary language at the same time scored about alike in reading and mathematics but learning both at the same time appeared to have produced higher scores in the English language subtest.

The most important instructional variables associated with differing English achievement means were whether or not the teacher habitually mixed the two languages, the teachers' English proficiency, the amount of learning time, and the quality of the English modeling. Mathematics scores were less affected by these than were those for reading and language. The amount of the effects of these instructional variables was much greater when only the limited and non-English speaking pupils were examined than when the fluent English speakers were included. In fact, the instructional variables were shown to have relatively low influence on the achievement of the fluent English speaking pupils.

The English and Spanish reading and mathematics scores of the students with both in the same year were highly correlated on the small sample whose scores coincided. They tended to score very much alike in the two languages. That finding was largely confirmed for the larger number of students with Spanish achievement scores in that English fluency was associated with score differences: the English fluent students taking the Spanish test were literate in both languages. Socioeconomics differentiated among the Spanish scores much as it had for the English scores. Similarly, the student status - regular, migrant, special education - continued to be associated with score differences: regular, highest, followed by migrants, and with the special education student means the lowest.

The differences among the implementation of the instructional variables were substantially reduced in the case of the Spanish test classes; many variables could not be examined because of the uniformity for those students that had Spanish test scores. Only two were shown to be important for this sample: the sequence in which the students had learned reading, with those that had learned both English and primary reading at the same time scoring higher; and the number of Spanish reading activities, with those students in classes in which a large number of such instruction scoring higher than those with a medium amount.

There was some evidence in several of the English and Spanish test measures that appeared to show that literacy in two or more languages was an important factor in students scoring high. Concomitantly, those instructional practices that taught the two languages rather than just use one to facilitate the instruction, were associated with score differences.

*Auxiliary Services:* A high proportion of the teachers was certificated for the bilingual program; only a few held the English as a second language certificate. A much smaller group of teachers

was on waivers and pursuing courses toward certification. Some were neither but those tended to be emergency assignment to classes with substantial numbers of limited and non-English speaking pupils; most of them did not intend to continue with the assignment. The preparation and experience of the aides was varied and some small amount of progress toward a career in teaching was found but it was not universal.

Although there were a few notable exceptions, the liaison relationships between school districts and universities tended to be sporadic and dependent upon the availability of special funds. The assistance from the federal and state projects was restricted to a small proportion of the districts but when a district and a project did work together, important products and training were evidenced. Assistance from regional organizations was generally described as worthwhile and providing services that many of the individual districts could not do for themselves. Help from several offices and bureaus in the State Department of Education was described as very important even when that could be provided only via the telephone. The articulation among the several programs funded by different sources was described as strong; most of the respondents noted that articulation had increased since the inauguration of the consolidated application and the economic impact aid provisions.

The study of the advisory committees showed that some were not operating at the time of the interviews, that most met several times a year, and highlighted one extremely active committee that also helped bring about a great deal of volunteer services to the program with which it was associated. Involvement in the instruction in the schools was very scarce except in the noted special case and in one other school.

*Finance:* The finance substudy concentrated on the case study approach. Information on budgets was substantial but expenditures were impossible to trace. Similarly, tracking the use of funds from the district offices to the school to the classroom could only be accomplished by estimates and those produced only marginal indications of the application of them to the needs of the students. The decisions about the use of funds were mostly taken at the district level but some schools participated via the presentation of budget requests. Bilingual monies were described as spent mostly for the instructional staff, especially aides. Districts received their bilingual monies primarily from the LES/NES count but adjustments were made for other financial conditions. The bilingual funds were generally described as adequate with the exception that some adjustments were needed when a school experienced a large amount of student enrollment after the allocations had been decided.

## RESEARCH DESIGN

The research approach incorporated features in the selection of measures, sampling design, choice of data sources, and analytic techniques designed to maximize the opportunites for obtaining interpretable findings. Input was obtained from Advisory Committee members and consultants at key design and instrument development points to enhance content and format quality. Measures of effectiveness related to program goals were used to provide indicators from students, teachers, aides, and administrators which could be compared across sources to obtain a consensus. Implementation information was obtained from written materials, group and individual interviews, and classroom observations. Appropriate indicators were used so that the type of outcome measures (achievement, satisfaction, or behavioral) indicating impact could be pinpointed in contrast to generalized measures.

### Samples

The sampling plan was multi-staged and purposive. The rationale for a purposive rather than a probability sample rested on the judgment that it was the only way, given the limited resources available, to assure that the evaluation results would be based on what key persons intuitively accepted as representative of bilingual education in the state. Given the relatively small number of districts and schools which could be involved, there was a danger that purely random procedures would yield a sample too heavily weighted toward some groups, practices, or areas, or that it might totally devoid of some scarce but important examples ( e.g., certain language groups). Since the purpose of the evaluation was to provide information that policy makers would judge valid and practical, the consideration of representativeness was of great importance.

The study sample was chosen to include as wide a spectrum of language groups as possible, taking into account the variables of numbers of LES/NES, program experience, geographic location, size of district, urban/suburban/rural, and adequate representation of the three largest language programs: Spanish, languages of the Philippines, and the languages of China. As finally drawn, the school sample was comprised of 48 elementaries, 21 secondaries (junior and high schools) and five special programs for a total of 74 sites located in 15 districts distributed throughout California. Classrooms were chosen from each grade in which a bilingual or formal ESL class existed in each sample school (resulting in more classes in some schools since both a bilingual and a separate ESL class existed at the same grade level in a few). The elementary schools in the sample represented approximately 25% of the schools with bilingual programs. Some variation from that occurred when a small number of schools existed; in those districts the percentage was higher. In others, because of the need to maximize the number of language programs and to include federal, state, and local funding, the percentage was also higher. In

general, the school samples were selected to obtain a balance of grades, languages, socioeconomics, funding sources, and program experience.

Data Collection

Multiple techniques were used in data collection. They included structured interviews, survey questionnaires, direct observation, document reviews, and the collection of test data. Specifically, the following instruments were devised: Program Identification and Characteristics Guides; Teacher, Aide, and Administrator Guides; Financial Resources Guide; Literature Review Guides; Special Data Guides; Administrator-Member Advisory Committee Opinionnaire; Satisfaction Opinionnaires (separate forms were prepared for student, parent, community member, and school staff in English with parallel versions in Spanish, Tagalog, Ilocano, Chinese, and Japanese); and Classroom Observation Instruments. (The instruments can be found in the interim reports and in *Volume III* of the final report.)

The evaluation study was divided into three chronological phases. The first phase was seven months and was primarily devoted to the preparation and refining of the study design and the collection of baseline data from the selected school districts. The second phase spanned a full year and was devoted to the initiation of the census substudy (with its subsequent revision on August 10, 1978), gathering implementation data at the selected schools, and finalization of plans for the collection of effectiveness data. The third and final phase, comprising 15 months, was devoted to gathering effectiveness, implementation and satisfaction data, investigating the relationship between implementation characteristics and effectiveness; analysis of data; and preparation of the final report.

Analyses

The analysis for the study of services to limited and non-English speaking students in California focused on the major areas of research:

1. A substudy of the language census procedures conducted in modified form to accommodate changes in the legislation, and reported in *Interim Report III*.

2. A substudy of promising bilingual instructional practices reported in the literature which partially replaced the language census substudy in August, 1978; the literature review was in *Interim Report IV*.

3. A substudy of the support to bilingual education through the financial resources made available from local, state, and federal funds, and the distribution of those funds to the actual services to LES/NES students.

4. The main body of the study consisting of collected data on the students in the sample classes, schools, and districts:

   a. grade
   b. primary language
   c. English proficiency classified
   d. approximate socioeconomic status
   e. achievement scores from standardized English language examinations.
   f. achievement scores from standardized primary language examinations, when available, and
   g. ratings of satisfaction with the services provided, included in *Interim Report V.*

Items f and g comprised the student effectiveness variables. An additional dimension of effectiveness was gathered through ratings of satisfaction with services obtained from samples of administrative staff, teachers and aides, parents of students, and community members.

Overall, the study analyzed bilingual education in California in terms of the following components:

CONTEXT (state, district, community, liaison agencies) that provide resources for the

FACILITATION (administration, resource staff, teaching staff) that allows the appropriate designs and implementation of

PROGRAMS (types, languages, instructional practices) that are delivered to

STUDENTS (languages, English proficiency, socioeconomic status, student status, grades) and results in

EFFECTIVENESS (achievement, satisfaction) of the clients.

The districts and programs chosen for this study included both those with the reputation for relatively high achievement and those with lower student scores. Differences in achievement and client satisfaction, the two effectiveness measures, were then studied in light of the student and program characteristics to determine the implications for California policy makers. The contextual dimensions of district and community support of the services, parental involvement, and agency liaison activities, were examined to add information on the climate in which the programs operated.

When differences were found in either of the effectiveness measures, achievement and satisfaction, the variables outlined for the preceding elements were examined to determine which contributed significantly to those differences and/or explained them. Suggestions

and recommendations of the Advisory Committee and Technical Consultants guided the analysis plan, with special reference to the interpretation of achievement data.

Analysis of variance and multiple regression were the major analysis procedures for the study. Basically, the multiple regression techniques were used to identify those program characteristics that might explain the largest amount of variance between and among schools. A clear delineation of those implementation characteristics present in effective programs that were not seen in ineffective programs was deemed to be of particular importance to policy makers and school officials.

All statistical data were recorded on keypunch format sheets and computer cards were prepared and edited. The information was then transferred to tapes and the analysis run via the *Statistical Package for the Social Sciences - SPSS* at the San Francisco State University computer center and the State University System Center in Los Angeles. The original collection instruments, recording sheets, keypunch cards, and all interview guides and other field instruments were placed in locked storage at Development Associates' San Francisco office.

Limitations

Various limitations confronted the researchers during the specific phases of the study. In the initial stages, such factors as school closure due to declining enrollments, reorganization of catchment areas, changes in the numbers of students classified as LES/NES because of transfers, dropouts, or district exit criteria, incomplete counts on migrant student enrollment, as well as uncertainties in the funding for the Indochinese Refugee Program delayed the furnishing by most of the districts with exact data on schools, classrooms, and type of programs. The effects of Proposition 13 were also felt. Two of the sample districts were affected by teachers' strikes and a third had a strike during the final phase of student achievement data collection, which further delayed the end of the data collection phase until September 26, 1980. However, these problems were dealt with as they arose, with the assistance and cooperation of the Office of the Legislative Analyst.

Certain factors also affected the completion of each of the substudies and impacted on the scope and content of the final results. At the modification of the study into the language census procedures on September 13, 1978, that investigation was in its initial stages. The report on the language survey instruments was necessarily limited and provided only some indications of their technical and psychometric properties.

The study on primary instructional practices, which partially replaced the census study, also faced limitations. Both literature review and the practices declared in use by sample programs contained

so many contradictions that a systematization of the practices described in either was impossible. Many program staff officers also experienced difficulty in ascribing implementation characteristics to what was being done in the classrooms. Thus, the promising practices in the literature and those in the sample programs had to be treated separately since the contradictions could not be resolved without great confusion.

In the collection of satisfaction and implementation data, one district placed severe restrictions on the information that could be collected. Another district, in which no restrictions were placed earlier, subsequently experienced difficulty with other investigations and decided to restrict access to certain data. Finally, as would be expected in such a massive effort of data collection, occasionally respondents were not available despite repeated attempts to complete the interviews. While these omissions are regretted, it must be pointed out that they accounted for less than 2% of the respondents; it is unlikely that their loss would affect the findings.

Because examinations into the analysis procedures to be utilized in the study had shown a variety if ways to quantify the variables in the program characteristics, it was necessary for Development Associates to devise optional procedures and to finalize them in conjunction with specialists in the field and with the Advisory Committee and Consultants. This was particularly the case with student achievemtn scores, as the simple reporting of all scores as gathered from district records would have introduced serious error into the study findings. Psychometric properties of the tests limited the analysis of the data. Some of the limitations earlier indicated also confronted the study of auxiliary services. Unavoidable delays were encountered during the collection of data, and information was often sketchy and dubious, necessitating beyond normal effort.

In the finance study, the intricacies of state school financing formulas, plus the variations in district accounting and reporting procedures, suggested that the research would have to accommodate to some limitations and devise creative ways of dealing, not only with the idiosyncratic problems in each district, but also with the availability and accuracy of district data on the expenditure of funds used to serve LES/NES students. The tracking of the financial resources proved to be problematic. Accordingly, the study concentrated on three districts from which a relatively detailed and intensive description of the financing pattern was produced. Although in selecting the three districts an effort was made to account for their geographic location, size, funding levels, and enrollment, the generalizability of the final case study results was necessarily limited. Nevertheless, the results of the study, albeit not necessarily representative of the entire state, should yield valuable insights that will further understanding of the nature and extent of financial resources supporting services to LES/NES students.

As might be expected in a research effort of this size, accommodations and modifications in the study design and procedures were made as necessary to deal with the limitations, insofar as possible. However, in all cases, these were dealt with in a systematic manner, following the recommendations of the Advisory Committee and Consultants, so that the disruption of the core study tasks was kept to a minimum, and so that the results would have maximum generalizability.

## LANGUAGE ASSESSMENT

The study of language census procedures and instruments was limited to a review of the literature about them, an examination by language experts into some of the different language versions, and information provided by district officials. The study of literature about dominance instruments, and about the Home Language Survey and the Observation Assessment Instrument was mostly completed prior to AB 3470, which changed the focus of the census. The two instruments were studied by a panel of experts and information from test administrators was gathered.

Interest in identifying children with limited fluency in English has increased since World War I and many instruments exist. Heightened awareness about languages and the need to provide better services to limited English speaking students increased in the late 1960s. The federal programs in bilingual education and the Lau decision guidelines were additional stimuli. Some California districts had performed identification activities previously but the first state census was not attempted until 1973. That partial count yielded about 190,000; the count in 1976 was reported at 291,000. Districts were paid on the basis of nearly 220,000 pupils in 1978. A review of the actual language census counts failed to show definitive trends over the period 1973 to 1978. While a small decline in the number of limited and non-English speaking students in the state could be inferred from the data, the Department of Education predicted a substantial rise over the next few years.

Legislation for uniform census procedures was passed in 1976 and reaffirmed thereafter. To accomplish this end, the Home Language Survey was instituted to identify students from homes in which the members speak a language other than English. In 1977, the Observation Assessment Instrument was administered as a followup to determine each child's dominant language; limited and non-English speakers were to receive bilingual instruction. Both instruments were available in many languages. Little research on their reliability and validity was published but practitioners judged them to be adequate for their limited functions. Instrument development specialists noted many ways they could be improved. Suggestions for making the instructions more complete were also given, with the most important that of including material on establishing rapport.

The 1978 legislation changed the procedures from a dominance test to language proficiency measurement. Four were permissible for that purpose. None was produced in any langugage except English, Spanish, or Portugese; only one of the four measured any construct other than oral and aural usage. Published information about their qualities and practioners' reactions to them gave conflicting views. Further review of the tests found them lacking in some qualities and in need of further improve-

ment. Since the instruments have only been recently in use, the experience base from which judgments could be made about them was limited. In fall 1980, after a special committee assessment, the permitted instruments was reduced to two for 1981 - 1982.

It is important to note that concerns continued to surface regarding the "state of the art" in testing procedures. Obviously, much progress has been made in the construction of language dominance, proficiency, diagnostic, and achievement testing in the last decade. The statistical procedures used to norm the items within the domains and the inclusion of wider student populations within the norming groups have made their results more generally reflective of the composition of the nation's pupils.

Nevertheless, every reliable review of any of these tests will emphasize that there is a great deal about such tests, their administration, and interpretation that is still largely unknown. The psychometric properties of most tests, especially the reliability and validity, are questioned by some scientists and practitioners. In the past, practitioners have largely relied on the research work performed by test makers for information about the psychometric properties - education is increasingly worried about the data these provide. And the use of almost any of these instruments with limited English proficiency students has been severely criticized for some time.

Probably the one thing that independent psychometricians would agree on is that no ONE test is going to provide all the answers needed about a student's ability to function appropriately in English.

This fact is generally recognized by test publishers who caution educators against reliance on one instrument as the sole indicator. Many of the classroom teachers interviewed for the study also pointed out problems with the assessment procedures in terms of proficient and/or highly intelligent children who had been wrongly placed into the limited or non-English speaking categories on the basis of a single judgment. While sometimes the pressures on legislators and local educators are such that they seek an easy and hopefully absolute answer about each child, adequate assessment of a child's abilities in any language requires more than one measure.

This state of the art review, then, leads to a series of implications for policy makers regarding the assessment of the ability of students to function in English and any other language:

> *No test now in existence demonstrates the psychometric properties necessary to rely totally on its results for every child and for every language group, whether the desired outcome is language dominance, proficiency, diagnostics, or achievement.*

Some have been shown by independent research to possess the needed qualities more than some others and that research should be consulted when a test is being chosen. Even the best, however, have many deficiencies. Many psychometricians and practitioners recommend that:

> *At the present time, the best assessment procedure is one that incorporates more than one measure of the student's functioning ability: usually the administration of a standardized test, observations of his language interactions in the classroom, other areas of the school, the home environment, and that these be organized into a systems approach.*

At least two have been practiced long enough to provide some evidence of their usefulness: that used in the State of Hawaii and that being given a trial in the San Jose Consortium. Others no doubt exist and should be examined. Each of these, depending upon the grade of the child, combines evidence from an entry test of language functioning, teacher observations, parent recommendations in some cases, achievement test results, and sometimes examination of some of the student's products in the learning process. Such a procedure occupies more time and thus becomes more costly in terms of personnel. Obviously, the entire process need not be carried out for every child since the evidence from the first two elements may be so overwhelming that no doubt remains. The process becomes more important for making the decision about exiting a child from a program; if the entry and exit assessments are parallel, and the entry information is utilized to shape the curricula and methodologies by which a child is taught, the system has a reasonable opportunity to affect the outcomes.

By the time Development Associates began the study, the Observation Assessment Instrument and the Home Language Survey were 'well entrenched,' and local district personnel had received a fair amount of training in their use. They had been administered to large numbers of children, with little resistance offered to their administration. Limited criticisms had been directed toward certain parts of the tests, especially certain translations. However, their usage in 1977 marked the first year that the census and assessment procedures were fairly universal throughout the state.

Several months later, the testing was changed to language proficiency. Again, few complaints were raised about the instruments themselves; this finding held true for the teacher interviews conducted by Development Associates during the 1979-80 academic year. The questions that were raised about the tests concerned whether they met the legal requirements, the fact that most were only available in English and Spanish, and the increased administrative costs. There was a unanimous complaint, however, about changing the assessment one year after another procedure had been instituted and with no lead time to prepare for the new type of testing. These, then, suggest another policy issue:

*Policy makers should be very cautious about changing from one test to another unless overwhelming evidence demonstrates that the new instrument is clearly superior to that already in place.*

In this regard, the development of instruments should consider opinions of bilingual educators and district needs in accordance with the Lau decision and requirements. The needs of smaller language groups should also be taken into account. Priority should be placed on those needs that are closest to being met due to costs involved. Obviously policy makers must continually scrutinize the psychometric properties of the tests and choose those with better qualities than others. When data on reliability and nolidity *clearly* show some to be better than others, the preceding recommendation cannot be followed.

Cost factors are important to districts, as these costs must be borne by local budgets. The dominance tests could be duplicated locally and administered in 10 to 15 minutes. However, the language proficiency tests are copyrighted and must be purchased commercially; in addition, administration time invariably increased to 20 to 35 minutes. Good diagnostic tests are likely to be even more expensive and require two to three hours to administer. These costs, in relation to the benefits to the child's instruction, must be examined in light of the amount of money that is available and where it can best be used. In any event, those costs and benefits are not the only outlays necessary.

The Department of Education needs time to study alternative instruments and make the best possible recommendations, to prepare the instructions to the districts, and to prepare and conduct the necessary training. The test must be administered and interpreted properly so each child benefits from the subsequent instruction. District personnel need training if they are to conduct the testing in a manner that will obtain the best possible results within the funds available. Test administrators must be adequately prepared so that they are able to develop sufficient rapport with the child to enable him to respond to the best of his ability.

*Any substantial change in the instruments or the procedures must be accompanied by the appropriate training of the personnel needed to administer and interpret them or the change will result in inadequate assessment, placement, and instruction.*

No test is impervious to its administration and interpretation. No test results, of themselves, can guarantee proper placement of the child and optimum instruction.

Other influences impinge upon tests and testing; the Office of Civil Rights, the *Lau vs. Nichols* remedies, the demands of other programs, particularly federally funded projects. These need to be considered so as not to cause confusion, multiple testing, loss of

instructional time and other resources, and frustration. The California laws have provided for alternative testing under certain situations and that policy should be continued when reasonable conditions permit.

Sometimes, too, what appear to be minor requirements in a policy may have undesirable effects and add to the burden and frustration of districts. Testing in October when school begins in September, thus requiring duplicated efforts and higher costs, is one example. Failure to provide for increased costs, or unclear guidelines about the costs, may result in reduced funds for the instruction of the pupils and resistance to the change, even when it may be an improvement. Requiring a kind of test for which few if any instruments have been adequately developed and researched, or for which versions in some important languages are not available, lead to the disillusionment of the personnel attempting to implement the policies.

Detailed examinations of any such inclusions should be made to determine how they will affect the practitioner and consequently the child.

California policy makers have seriously attempted to identify those children that need special services and then to provide those services. An examination of the history of the language census procedures, however, shows that change after change has occurred. Some of the changes do not appear to have appreciably enhanced the state's capability to identify the target children nor to necessarily serve them better, sometimes from the content of the change and frequently from the lack of time to implement the change. Changes will be needed. Both the nature of the change and its timing are worthy of careful consideration when policy is being formulated.

## INSTRUCTIONAL COMPONENTS LITERATURE

The modification of the plan for the three year study of services to limited and non-English pupils in California called for a detailed review of available research on bilingual instructional methodologies, with the objective being to isolate elements that seem effective or at least promising. For this purpose, three instruments for the literature review were devised: one for general treatises describing practices, another for research/evaluation materials, and the third for composite reviews. The review covered various depositaries and libraries, including an ERIC search, as well as materials from dissemination and assessment centers, bilingual training resource centers, and general reference sources.

Mainly, current literature about bilingual education concentrates on philosophical issues. The second most prevalent literature presents information on why monolingual education has failed to meet the needs of bilingual children. Third in volume among the printed materials is a series of technical treatments related to how bilingual children learn. Bilingual instructional practices occupy some published space as specifically designated topics but they are usually comingled into descriptions of a model or into a generalized process of providing education.

Education theorists have usually, though not always successfully, differentiated instructional practices into model, approach, process, method, and technique. Terribly confusing, however, in current literature in bilingual education, as in monolingual education, is the promiscuous use of the above terminologies in describing a specific practice or set of practices. Some of this confounding of terms came from lack of specificity in writing, some from conceptual inaccuracies, and some from trying to create a label that would make the authors' ideas "memorable."

Several types of bilingual program structures were noted. They provided much of the background for the instructional practices which were culled from scattered sources. Many models, approaches, processes, methods, techniques, and activities were also reported to be in use by practitioners and teachers in bilingual education. (These were presented in great detail in Chapter III of the final report and in *Interim Report IV*.) Unfortunately for all the instructional practices found, current research on them was much too sparse to generate many firm conclusions about their effectiveness. Encountered in the review were numerous research reports and studies, as well as composite reviews of literature, which both confirmed and questioned the effectiveness of the instructional components in bilingual education. Although evidence appeared to support the efficacy of bilingual education, opponents are not satisfied with its generalizability. It would be expected that the available studies of the effectiveness of bilingual education should at least yield some identification of specific classroom practices that contributed to either the success or failure of a program. Such, however,

was not usually the case. The difficulty of the matter was ostensibly due to the complex web of factors and variables involved in bilingual education. As one author also found, "bilingual methodology" and "bilingual teaching techniques" are often used widely, but there is really no indication of their existence and "what turns out to be methodology is in reality the use of two languages in the instructional program."

As a generality, the literature on practices presented few details of what, how, and when instructional components are to be conducted. An enormous amount of space was devoted to why. One area that did contain substantial details was the formal English as a second language (ESL) programs. While evidence of their effectiveness was not conclusive, the literature on ESL programs provides systematized guidance. There was also a body of worthwhile but heterogeneous information on single methods or techniques on a grade level (especially for preschool and kindergarden) and on materials. Sometimes, evidence on effectiveness existed but most often, it was lacking or inconclusive. When a particular problem is encountered in teaching LES/NES students, these publications may be of some assistance.

With relatively few exceptions, the literature about instructional practices was generally of dubious quality. The writing was frequently difficult to read. The terms were used in confusing ways. Allowance for cognitive styles was variously presented as a model, approach, strategy, process, method, or technique.

As is obvious, few meaningful guides existed in the literature concerning instructional practices in bilingual education. Discussions of practices tended to be general, and little specific information was provided for programs wishing to utilize them. Some of the more complete guides were commercially produced, and their effectiveness was not always borne out by independent research. Further, the conflicting use of terminology in the literature was very confusing to practitioners. Finally, conclusions relating to practices were not only for the most part judgmental but also were not generalizable.

Some research results existed, however, but they were not widely known by practitioners. In cases where research results were "known," they were often misinterpreted. Therefore:

> *Policy makers should designate resources to search the literature (especially that in which effectiveness is measured), prepare easy to understand summaries, and disseminate these to practitioners.*

This process would facilitate the incorporation of proven instructional practices into the classroom teaching.

Program officials and teachers have, in fact, reported that they experience a great deal of difficulty in finding the information

they need for the formulation of program designs or revising them. Those difficulties should be understandable. To find the specifics needed for classroom implementation of most program components, volumes of material must be pored through and sorted out. And even then, the confusion of terms, unsubstantiated claims, and conflicting evidence make choices problematic. Given this state of the art:

> *Policy makers should be aware that the development of bilingual instructional practices and evidence to confirm or disconfirm their effectiveness needs more concentrated, more specific research work. Efforts in that direction should be encouraged.*

The guidelines necessary for further research should define specific instructional components and avoid treatment of bilingual education as a type in itself. The specification of practices and the use of terminologies should be clear and precise to eschew the difficulties encountered in literature. Effectiveness or non-effectiveness should be demonstrated and accompanying conditions specified.

Classroom teachers are the major vehicles of instruction and the strengths or limitations of any teaching methodology must ultimately depend upon them. It is often said, rightly or wrongly, that there are really no bad methods; there are only bad teachers. Realistically, instructional policies cannot be separated from policies concerning the recruitment and appointment of classroom teachers.

> *Policy makers then should strengthen standards and measures in the recruitment and appointment of teachers to ensure that only those qualified are assigned to bilingual education programs. Staff development and training should receive close scrutiny and should be strongly emphasized in bilingual programs.*

The combination of research results, translated into teacher training programs, and then transported to the classrooms, will cause effectiveness to rise.

## PUPILS, PROGRAMS, AND INSTRUCTION

A primary thrust of the study of the California services to limited and non-English speaking pupils was to provide information on the effectiveness of the several programs in their delivery of education. Development Associates therefore began to gather data about the programs specified in the AB 1329 legislation: full bilingual, bilingual-bicultural, partial bilingual, and the individual learning plan. During the first data collection with the district officials, it became obvious that these categories were not seen as adequate descriptors; officials had a great deal of difficulty in classifying what they were doing under these four programs. The officials were then asked to describe their programs in their own words.

In subsequent interviews with the school officials, incongruities began to develop between how the district and school authorities described the programs. Teacher descriptions varied from those given by school officials. It thus became clear that classroom observations would be needed to ascertain the nature and extent of different programs within the services rendered. A relatively high congruence was found between what the teachers said and what was found in the classroom although some variations were still found. Still greater differences were discovered between the particular practices teachers reported in use to implement the program and those observed in action.

*Research Procedures*

The sample districts were chosen purposively to be broadly representative of the services to limited and non-English speaking pupils in the state. After careful study of the composition of the pupils and the programs in the schools within each district, the schools were again chosen purposively to give a range comparable to the district as a whole while at the same time, and in so far as possible, incorporating schools into the sample that would present programs for different language groups. Classrooms were selected similarly but with the addition of grade representation. Every child in every sample classroom was included in the student sample.* Many schools also had students on individual learning plans that were not comprised within the selected sample classrooms. Two different samplings were designed for them: 20% of all pupils was randomly chosen after stratification by grade and language; classrooms with five or more individual learning plan (ILP) students were studied in their entirety.

**In some cases, especially in departmentalized junior and high schools, a student might be in more than one sample classroom; in that case, he was left in the one most representative of the language development assistance and removed from the other. The instruments were presented in the several interim reports and are also included in Volume III, Technical Materials, of this final report.*

The combined purposive and random sampling procedures employed in the study of educational services to limited and non-English speaking students in California produced 10,121 children of widely varying characteristics. Their distributions by English fluency, socioeconomic status, student status, and grade approximated their inclusion in the sample districts and to a considerable degree, their incidence in the state enrollments. One characteristic, first language of the pupils, somewhat exaggerated the counts of those from the minor languages because of the efforts to include them in the study; Spanish speaking pupils still made up the largest group within the study, however, just as it did in the state enrollment.

The purposive sampling procedures also produced pupils enrolled in a wide variety of programs and those being served through individual learning plans. The original descriptors of the instructional programs were not always sustained when the actual classroom practices were examined; two program types that were declared to exist within the sample did not materialize. The observations showed that most schools had more than one program in operation in the same grade and in different grades; there was little evidence of students having been tracked through any one curricular thrust. The differing instructional approaches within and across years, sometimes resulting in students being expected to have learned something they were not taught, led to an important policy issue:

> *State, district, and school officials need to commit additional time to planning the instruction that will be offered in the classes, training teachers to implement the planned instruction, and supervising both the instruction and the placement of the pupils so that counterproductive arrangements are not allowed to detract from student learning.*

This recommendation should not be interpreted to mean that only one curricular thrust will serve the students' needs nor that every teacher should be doing the same things at the same time. It should be implemented to a degree that will ensure students every reasonable opportunity to be taught systematically and logically. Development Associates recognized that some of the programmatic influences had occurred because parents sometimes withdrew their children from one program and placed them in another, that transiency across schools and districts exaggerated the differences, and that even with relatively tight controls, some instructional mixing will occur due to differing numbers of students with different characteristics. The researchers also recognized, however, that many of the varying instructional influences were caused by a weak or non-existing curriculum, by instructional approaches that were determined on an individual basis by teachers, and by irrational pupil placement.

The examinations of the composition of the classes showed that

the schools had made substantial efforts to include enough fluent English speaking students to serve as language models, that the range of academic performance of the fluent English speaking students in the rooms was slightly higher than the normal distribution of performance, and that except for special aggregations for specific instruction, classrooms contained proportions among fluent, limited, and non-English speaking pupils reflected in the general school enrollment. Some of the bilingual classes, however, contained limited and non-English speaking pupils from more than one language group.

While in a few commendatory examples, teachers and aides were able to teach in more than two languages, in the majority of cases this kind of assignment placed unusually harsh burdens on the instructors. Extreme variations in reading levels in English and the designated primary language were often so great that appropriate attention could not be directed to the several groups. And in the cases in which speakers of other languages were added into the milieu, nearly no one could be expected to teach them properly. These conditions caused Development Associates to state a recommendation that merits attention:

> *When more than one bilingual classroom is available by grade in a school, and sometimes when reading groups can be formed across grades, steps should be taken to reduce the extreme variability of levels of instruction required in a single room; the conditions in some bilingual rooms are presently frustrating to good teachers and contribute to lessened learning by the pupils.*

The implementation of the several measured instructional practices in the sample classes differed significantly among them. While the differences may not all contribute to variations in learning, some of those declared as important to the teaching/learning process deserve consideration. Although fortunately not frequent across the many sampled classrooms, several conditions are outlined:

> *A few teachers did not exhibit a level of oral fluency and literacy in English expected for professional educators. A substantially larger number of aides was deficient in English, even to the extreme of being non-English speaking by their own admission.*
>
> *A few teachers did not exhibit a level of oral fluency and literacy in the designated primary language expected for professional educators. Further, the deficiencies did not always reside in the same persons; some were fluent speakers but very deficient in literacy. Aides tended to be sufficiently fluent but were often seriously deficient in literacy.*

*It is therefore recommended that the selection and certification procedures be strengthened so that teachers and aides meet the minimum requirements for fluency and literacy in English and the primary language.*

Teachers exhibited appropriate implementation of the major instructional practices in the vast majority of the cases. Some, however, had serious deficiencies that inhibited carrying out the teaching functions to which they were assigned. The most frequently observed problem was that many in English as a second language programs did not know how to carry out that program. Therefore:

*The state, district, school, and university faculties are urged to make a considerable investment in the training and retraining of teachers in this rapidly growing type of instructional approach.*

The second area in which many deficiencies were noted was that of teaching Spanish reading. A substantial number of teachers did not know how to carry out this function. Further, many teachers commented that they had not been taught how to teach Spanish reading. It follows, then, that:

*State, district, school, and university officials should provide specialized training and retraining to teachers on the methods and techniques of instructing students in Spanish reading.*

It is important to differentiate between Spanish fluency and the methods of teaching Spanish reading. Some of the teachers who were very fluent in Spanish were also very deficient in the teaching methodologies. They are two separate abilities, each meriting attention in its own right.

The supervision of instruction appears to have diminished to a very low level of implementation during recent years. Some of this occurred because in earlier times supervisors were seen as "spies" and as exerting undue influence on the way teaching was conducted. Some of the reduction also happened because lowered funding allocations reduced the number of persons who could be expected to carry out supervision and because the existing administrators were burdened with increasing amounts of paper work. Regardless of the causes of the lessening of this function, some teachers exhibited some extremes of deficient behavior that would appear to materially reduce the opportunities for learning in their classes. Utilization of less than half the available time for instruction and engaging less than half the pupils in the room in teaching/learning activities would seem to call for remediation. For these reasons, then, Development Associates recommends that:

*Districts and schools reinstitute some judicious use of supervisory functions with the sole purpose being that of increasing the learning opportunities for children.*

When the school officials, teachers, their elected boards, and the community have determined that a particular curriculum or set of curricula meet the requirements for instruction in the classrooms, supervision could also increase the implementation of the instruction and reduce the multiplicity of educational practices present in some schools that had the potential of increasing the difficulties students experienced in trying to learn.

Finally, but most important of all, the issues discussed in this description of the instruction for limited and non-English speaking students led to the inescapable conclusion that a very high proportion of the teachers was found to be working hard, implementing sound educational practices, and managing their classrooms very well. The deficiencies had to be discussed and remediation of some of them certainly appeared to be in order. The recognition of them, however, should not imply that they describe most teachers nor most instruction. Indeed, the instruction for limited and non-English speaking pupils in this study sample was, for the most part, being conducted efficiently and well.

## SATISFACTION WITH LES/NES SERVICES

Separate instruments for students above third grade, staff (teachers, aides, resource teachers, administrators), parents, and community members in a purposive/random combination sample, were devised to cover the major areas of concern in the provision of services to limited and non-English speaking pupils. Separate language versions were prepared and the interviews were conducted personally by interviewers who spoke the appropriate language fluently and who had experience in bilingual education. The 2137 interviews were conducted in 70 schools in 15 districts.

Seven satisfaction items were included and two preference choices, all using a Likert type scale. These were computerized, together with the interviewee characteristics, and analyses of the replies carried out. Open ended replies seeking explanations for the ratings were requested. These were tabulated manually and reported with the quantitative data.

The characteristics of the interviewees were analyzed to determine if they conformed to the sampling plan. Two variations occurred: 1. the Indochinese sample was slightly smaller than planned since some of these, although from that geographic area, reported a Han (major language family of china) language as their first, and consequently, the Han sample was larger than expected; 2. the proportion of Spanish speakers was somewhat lower than planned because many Mexican Americans reported that their first language was English. The other sample components approximated the planned numbers and percentages. Overall, the minority languages were planned to assure that they would be adequately reached in the survey.

The first two items in the survey, general school satisfaction and the importance of speaking more than one language, were expected to be highly correlated with the satisfaction with bilingual education. The analyses showed that not to be so with this group of interviewees; the items were independent of each other. The interviewee might be happy with the school generally and unhappy with bilingual education, or the reverse. The importance of speaking two or more languages likewise was independent of the satisfaction with bilingual education.

The interviewees expressed a considerable satisfaction with their schools. Further, when the means of each respondent type, first language spoken, and the number of languages spoken were examined, no statistical differences appeared. The amount of satisfaction or dissatisfaction was about the same regardless of these respondent types. Those associated with one of the programs, the primary language class*, were significantly higher than those of any of the other programs.

**Students were enrolled in the regular English program but went to a primary language class 3 to 5 times per week.*

As a whole, the respondents agreed that it is important for Californians to speak more than one language. Only two groups tended toward a lower score, both near the midpoint: non-program teachers and those whose first language was English. Whether an interviewee was monolingual, bilingual, or multilingual did not differentiate the ratings. The persons related to the primary language class program again gave a higher rating than did those from the other programs.

The interviewees as a group agreed that the bilingual education legislation was satisfactory. Monolingual English speaking non-program teachers, respondents that spoke English first, monolingual Spanish speakers, and Amerindians had substantial numbers of persons within their groups that disagreed. On the other hand, those who spoke one of the Han or Indochinese languages overwhelmingly approved of the bilingual legislation.

It should be noted that these groups, plus some respondents in the others, disagreed or were undecided about the legislation for three reasons: 1. some thought the act permitted too much primary language instruction; 2. the provisions of the act are satisfactory but the implementation does not accomplish the goals; 3. the Native Americans and those representing some other minor languages complained that there are no provisions for the revitalization of a language when it is being lost.

Since a considerable amount of criticism is leveled at bilingual education in various meetings and media reports, it was expected that opinions on pupil progress might show the widest disparity of any. That was not the case; the respondents pretty much agreed that the pupils' progress was satisfactory. Most of the subgroups within the total sample were alike on this item. English speaking community members, however, were significantly lower than the others.

Despite the similarity among the scores, many concerns were brought out in the explanations to the ratings on this item. One of the most important was the problem of teaching English in a community in which little English is spoken. Some suggestions for strengthening the English there included lengthening the school day, adding Saturday and summer programs, and reducing the amount of primary language exposure during the school day. At the same time, however, recent immigrants and many school personnel felt that some students cannot function yet in English and need some subjects taught in the primary language so they can continue to progress in school.

The respondents rated the way the classes were taught as between undecided and agree. Two groups gave significantly lower ratings than the others, non-program teachers and community members. And when these respondents' first language was English, their rating was still lower, approaching disagree. Monolingual Spanish speaking parents also tended toward disagree.

The positive comments pointed out that a valuable asset, multiple languages, was being preserved, that primary language allows some students to succeed when they could not in English only, and especially, that the staff was doing a good job. The negative comments all related to the amount of primary language used in the instruction: too much time devoted to primary language; too much use of primary language in the classroom, apart from the instruction; and strong disagreement with teaching only in the primary language. Interestingly, the monolingual Spanish speaking parents were as opposed to the latter point - teaching only in the primary language - as the monolingual English speakers.

No important differences were found among the ratings on the teaching of cultures in the programs. The comments were quite favorable from the Spanish speaking respondents. They were somewhat less so from those who speak some of the minor languages; these alleged that their cultures were not taught. A number of respondents, particularly among the community members, noted that the schools do not teach the US culture as well as they should and especially decried what they saw as a reduction in the teaching of history, civics, and geography.

Combining these three main pupil associated items, an index was computed. When viewed by first language, number of languages spoken, or association with one of the programs, only one important difference could be seen: the respondents associated with the primary-language class were significantly higher than the others. As would be expected from the separate item analyses, the community member index was significantly lower than the others, approximating *between agree/disagree*. The indices for the pupils, aides, and administrators were about at the *agree* rating, the others somewhat lower. With the exception of the community members, the respondents expressed "guarded satisfaction" with the pupil associated items.

The respondents were not well satisfied with the community participation in the programs; their rating was undecided and lower. Some of the research sites had considerably higher ratings than others, apparently reflecting real differences in the number and quality of the community participation. The Amerindian respondents rated the participation higher; the Asians lower. The comments noted that more parents should attend the meetings and help with the schools.

The interviewees were then given the opportunity to express a preference for the period of enrollment of the students in bilingual education. Very few chose *none at all* and not many chose *one year*. *Until fluent in English* was selected by a very large majority and a sizable number took *until fluent in English and the primary language*. The Amerindians, Spanish, and Han language respondents were more likely to choose the latter or even *all the years of school*.

The final item offered alternatives to the proportion of English

to primary language in daily instruction. The 100% English choice was favored by monolingual non-program teachers and community members; a scattering of others also took that option. A very high percentage of the respondents chose 75% English/25% primary language; in some of the breakdowns by characteristic, as much as 80% indicated that preference. Han and Spanish speakers tended more toward a 50%/50% mix. Since these were also heavily represented in the recent arrival centers, that program, too, showed a high choice for that alternative. The number of respondents that chose the 25% English/75% primary language and the 100% primary language was negligible; these were not seen as viable alternatives.

Overall, then, the respondents showed a substantial approval for the services being provided to limited and non-English speaking pupils, whether these were organized classroom or individual learning plan types, or whether they included direct primary language or concentrated on English as a second language. In fact, even when the more formal English as a second language program was missing and English was taught through the regular English program, the ratings were just about the same. That did not mean that every item in the survey met with unqualified assent. The bilingual legislation, the way the classes were taught, and the community participation were more cautiously endorsed by the majority and there were sizable minorities that disagreed with them.

One of the striking findings of the survey, especially brought out in the explanations for the ratings, was the concern for learning English. Almost no one suggested that this should not be the prime goal of the programs and the schools. As a corollary to this, a persistent criticism was voiced against teaching pupils only in their primary language. But the primary languages were held as important, too; very few suggested that they should not be taught.

Perhaps the most useful of the findings was that the respondents were thinking about their schools, about bilingual education, and about the goals for the children. The conditions varied a great deal from one site to another and those, too, were reflected in the perceptions of the respondents. Nearly a third of the respondents was undecided about or had disagreements with the way the classes were taught. Half had concerns about the community participation.

Finally, the respondents were surprised and pleased that their opinions were sought. Apparently it is rare for anyone to ask parents and community members what they think about bilingual education; even many of the staff noted they had not been asked previously. That pupils, program teachers and aides, non-program teachers, resource teachers, administrators, program parents, and community members were asked their opinions and responded thoughtfully and freely, was an important result of the research in and of itself.

One very important policy issue emanated from the conduct of this investigation into the satisfaction of those associated with the programs and the schools: the respondents were surprised that their opinions were sought and gave them thoughtfully and willingly.

> *Studies into education, when not consumately technical, should seek the opinions of the associated school, home, and community people.*

Many persons in the researched sites had the opinion that it does not matter what they think, that programs will come and go according to someone's notions of what should be done. In a period when both financial and psychological support is badly needed, that opinion is very unfortunate.

Despite the unfavorable publicity about schools, one important statement resulted from this very wide satisfaction study:

> *The students, parents, and community still retain a considerable confidence in their schools, in the staff, and in the schools' ability to accomplish the educational goals.*

While there were some interviewees that differed from this opinion, they were few in number. This reservoir of generally positive opinion, of confidence, can be utilized to improve the conditions of education in California and its resultant effects.

Policy makers had noted that they receive a great deal of negative criticism about the bilingual legislation and its implementation in the schools. While there were some important exceptions to the overall opinion, it was also evident that:

> *Students, staff, parents, and community members generally approved of the legislation.*

An important consequence of the analyses by respondent type and other characteristics was that the approval was not limited to any one ethnic minority or language group. Those who spoke English as their first language were just about as likely to approve as those who spoke another language first. Relatively new immigrants to this country were somewhat more approving than those here for some time but both approve, as a generality. Some exceptions to this overall approval were found that should be noted: many non-program teachers and some community members had reservations about the legislation and/or its implementation. They felt that additional implementation assurances need to be included, especially that the children learn well. They, and many program parents, felt that too much primary language was being taught and utilized in the classrooms and that this demonstrated inadequate implementation of the legislation. Some concerns were also expressed that the legislation does not provide for the revitalization of a language that is being lost.

Unexpectedly, the interviewees expressed general satisfaction with the progress of the pupils in the classes. Again, important segments of the non-program teachers and the community members were undecided or disagreed. The general satisfaction, and the approval of bilingual education as a whole, did not apply to the way the classes are taught. That item brought an undecided, or between agree/disagree, opinion and a wider distribution of responses than any other.

> *Important segments of every respondent type had reservations about the amount of primary language that was being taught.*

There were two sides to this concern. One very small group expressed the opinion that not enough primary language instruction was given, or that the primary language instruction was not being done well enough. The opposite concern was far more numberous, however, with substantial numbers of every respondent group, and notably so in some sites, of the opinion that too much primary language was being taught. A considerable amount of opposition to teaching only primary language reading, to the exclusion of English reading, in the first year or two of school was expressed by some pupils, teachers, and aides, and by substantial numbers of non-program teachers, parents, and community members. Research into that practice is indicated and the resulting information should be widely disseminated to the entire population, not just to professionals.

The respondents were undecided about the amount of material taught about the cultures. This included not only the cultures of the several ethnic/language groups but the US culture as well. What was seen as a reduction in the teaching of US and world history, geography, and civics was a concern to many interviewees, especially community members.

The respondents were in surprising agreement about the amount of time students should be enrolled in bilingual education and about the proportion of English to the primary language that should be included.

> *Limited and non-English speaking students should be enrolled until they are fluent in English and English should constitute about 75% of their daily instruction.*

Some noteworthy exceptions to this generality should be specified. Some Spanish and many Han (Chinese) speakers tended to favor more primary language instruction, opting for more years of enrollment and an English/primary language composition beyond 25%. Further, recent arrival respondents recognized that their children could not progress equally if only small amounts of their instruction were in the primary language; they suggested that some subject matter courses be taught in the primary language while the students learn English.

The general research findings pointed out that the conditions varied widely from one part of the state to another. Although generally recognized, the investigators must state that:

> *It would seem unlikely that one single set of specifications about enrollment, proportions of English to the primary language, or program components would apply absolutely to every school or area.*

The respondents frequently brought out the special circumstances of their environment and often tempered their replies to speak to them. Provisions should be made that would permit that formulation of programs that meet the needs of the populations within the constraints or advantages each area experiences. While the desire for uniformity is understandable, and of course easier to administer, the respondents convinced the investigators that such is not in the best interest of the students.

Finally, there were some sites within this study that suffered unusual hardships from the present system of distributing funds and these were important in the minds of the interviewees. Thus, although they will also be dealt with elsewhere within this study, they are included in the satisfaction findings. Some schools and districts received very large numbers of students needing services during the school year; yet there appeared to be no feasible way to report these needs and acquire additional resources for dealing with them

> *A provision for midyear adjustments for schools/districts that receive large numbers of new limited and especially non-English speaking students is needed.*

Many respondents in certain sites felt that the present constraints on local funding, coupled with the restrictive beginning of the year fund allocations, make providing the necessary services impossible. Consequently, the very large classes restrict what teachers can accomplish and what the children can learn. The educational system does not work equitably under these circumstances. Bilingual education, or any other services to limited and non-English speaking pupils in California, cannot function properly when the conditions are so adverse.

## PUPIL ACHIEVEMENT

An important facet of the study of the educational services to the limited and non-English speaking pupils in California was the examination to ascertain the possible relationships between differing achievement and the instructional practices through which they were taught. Assembly Bill 65 specified that examination was to be via both English language tests and any available in the primary languages. Test scores were utilized in only one primary language, Spanish, since no other primary language test had been standardized to a sufficient degree for consideration.

The basic approach to the study of pupil achievement was the determination of the relative contributions to or detractions from learning by the many influences on that process. Those influences were separated into three categories.

1. Pupil characteristics: the first language learned, English fluency, socioeconomic status, student status, and the grade in which the pupil was enrolled.

2. Program Specification: the exact nature of the program composition for each individual student in 1980 and with an additional measure of the beginning reading program.

3. Instructional Practices: the measured methods, techniques, and delivery modes of the actual instruction as observed in the sample classes.

Purposive and random sampling procedures were employed to assure that insofar as possible, the pupils and the programs were broadly representative of those in the state. This goal had essentially been achieved; only the slight over representation of the minor language pupils and programs varied significantly from their existence in the districts and generally in the state. The data from the samples provided an accurate depiction of the services to limited and non-English speaking students. However, the use of the achievement test scores from the district administered examinations created a subset of the sample that could not be controlled by the Development Associates researchers, except to exert every possible effort to find the scores. The entire study sample of 10,121 students was consequently reduced to a maximum of 6,377 students on any English achievement subtest for any of the three years - 1978, 1979, 1980 - in which the student data were tracked. The Spanish achievement test subsample was usable only in 1980 and the highest number with scores was 1,232. This circumstance constituted a limitation to the conclusions that could be drawn from the results of the study.

Many different English achievement tests were administered in the districts and those were not always employed for the correct grade;

careful documentation of the test, form, and level, by grade, was necessary for each individual student. Utilizing a common formula for transforming the raw scores to T-scores brought about the recognition of another limitation: the psychometic properties of some of the tests, forms, and levels present some severe difficulties. Comparisons across levels, and thus from one grade to the next, are a dubious procedure, since the standardized scores vary considerably and the difficulty levels among them pose serious comparison problems. The study analyses, then, were confined to one year examinations, causing the loss of the knowledge about gains over time, a particularly interesting statistic for limited and non-English speaking children that are acquiring more English as they progress through school.

The problems with the tests themselves, with the collection of data from district records, and with the widely varying test administration policies of districts and schools led to important recommendations to evaluators and other researchers:

> *Extreme caution must be taken when using locally administered test scores since there are many inaccuracies in the data reporting; only checking the classes and even the individual students assures correct scores and proper identification of the tests, forms, and levels.*
>
> *The preliminary examinations of the psychometric properties of the tests, forms, and levels by grade showed some limitations to the analyses that can be performed, especially comparisons across levels and grades; revised procedures, possibly obtaining weighted scores by item difficulty, may alleviate the problem.*

The present study for the Office of the Legislative Analyst was fortunate that the uncontrolled subsamples created from the existence of achievement scores showed distribution patterns that did not differ markedly from the characteristics of the entire sample. Smaller numbers, however, such as was the case for the Spanish achievement scores, occasioned serious limitations to the analyses that could be performed and the conclusions that emanated from the data.

Five pupil characteristics were controlled in this research: first language, English fluency, socioeconomic status, student status (regular, migrant, special education), and grade. Differences in the mean T-scores, when these characteristics were controlled, were highly significant in most of the analyses and for all but grade. Those differences were sustained in analyses of variance and their calculated contributions to the variations from the multiple regression procedures were greater than the program or instructional variables. Those findings prompt another recommendation to evaluators and other researchers attempting to determine the effects of instructional programs:

*Examinations of differences in achievement scores that do not control for the characteristics of the pupils, contain gross exaggerations of the effects of the instruction if the entire differences are attributed to that factor.*

Just as importantly, some instructional effects may be obscured when no differences appear, since some pupil characteristics tend to equalize scores when the instruction affects them differentially.

The major findings of this study that were associated with the pupil characteristics were:

English fluency, that is, the three general categories of fluent, limited, and non-English speaking, was the most powerful influence on achievement scores.

*Concentrated efforts to increase the English fluency of the students, if successful, will increase learning as measured by standardized achievement tests. Those efforts should not exclude programs that aid in the acquisition of another language; the evidence from this study was that bilingual and trilingual students scored as well or better than monolingual English speakers.*

Low socioeconomic status students scored significantly lower than those classified as higher and the differences persisted across most of the other variables.

*Efforts to alleviate the effects of poverty should be studied, revised and/or continued; poverty effects on student learning in this study were severe.*

Special education students, for the most part, have severe learning difficulties; that is why they are in the program. The large and significant differences between regular and migrant students should be susceptible to amelioration, at least that portion that was in addition to poverty.

*This study did not investigate the attendance of the migrants as compared to the other students; if, as is frequently alleged, their attendance is substantially lower, ways to increase their exposure to learning should be explored.*

The existence of the differences in pupil characteristics should not be accepted fatalistically; some of the findings from the investigations into the effects of the instructional variables showed some practices that increase learning in spite of adverse characteristics.

Four program variables were included in the study: declared program type, observed program, type of primary language usage,

and the reading sequence. The first, declared program, was of little utility in the study since the reality in the classrooms had little relationship to the program labels. The observed programs, with one exception, were not associated with differences in achievement scores; implementation differences among the classrooms within any one program were greater than the differences between programs. The one exception was that type of program in which mostly primary language was taught; the students scored significantly lower than did the students in the other programs. A partial program variable, the sequence of teaching reading (primary language first, English first, or both at the same time) was also associated with differing achievement scores. Teaching primary language reading first resulted in significantly lower reading and language subtest scores in English but had much less effect on the mathematics scores. The findings, or lack of them, in relation to the program variables suggested that:

> The students in the bilingual programs and in those arrangements through which a primary language class was taught, when implementation was appropriately carried out, scored as well or better on the English achievement tests than did those that were in monolingual English education. And the students' learning of two languages had the added advantage of improving their skills in the other language.
>
> *There was no evidence from this study that bilingual education, per se, or the provision of a primary language class, in any measurable way reduced the English language achievement of the students.*
>
> On the other hand, the students who for whatever reason were enrolled in monolingual English education, scored as well on the standardized tests when the implementation of the instruction was appropriate.
>
> *The major differences in achievement emanated not from the type of program, with one exception, but from the instruction given in the classrooms.*
>
> Whether students learned primary language reading first in this country or in another, they scored significantly lower in the English achievement tests. That difference appeared to persist over several years; similarly, the classes in which little English was being taught were characterized by very low achievement scores and thus appeared to be contributing to the first problem. Students who learned reading in both languages at the same time scored as well or better than those who learned English reading first. Again, however, the quality of the instruction was a differentiating factor in both English first and both at the same time; it did

not appear to influence the scores for those students in the programs where mostly the primary language was taught, as they were quite uniformly low.

*If there is transfer of reading skills from one language to another, it was not evident from this study. What was suggested, instead, was that literate bilingual and trilingual students had a general learning advantage over monolinguals. The nature of that advantage was not discovered.*

*The findings from this portion of the study and from that gleaned from the little research in the literature also suggested that the policy of delaying the teaching of English reading for one or more years should be reconsidered; those students were severely disadvantaged in English and there was no evidence that their Spanish scores were better than those students who learned reading in both languages at the same time.*

Many instructional practice variables were investigated in this study, chosen from research findings and from the theoretical proposals. Clearly, there were substantial differences in the implementation of the instructional practices. Those differences as a generality, had little influence on the English or Spanish achievement scores of the fluent English speaking pupils. They tended to affect the limited English students significantly and some influenced the scores of the non-English speaking students even more. In the briefest terms, the findings from the instructional variables were:

The indiscriminate mixing of languages exerted considerable negative influence on the scores for all the subtests but affected the language subtest most; the effect was much more pronounced for limited and non-English speaking students than for those fluent in English; mixing languages did not appear to affect the Spanish achievement scores.

*While this study did not investigate the nature of the effect of mixing languages, there was some indication that the so-called "confusion between languages" might be related to the mixing. More research on the practice is required, but the evidence from this California study strongly suggested that it be reduced if not eliminated.*

The degree of teacher English proficiency affected the English achievement subtests of reading and language; teacher primary language proficiency affected the Spanish reading subtest. Very low effects were found for teacher language proficiency on the mathematics subtests in either English or Spanish. While most teachers who were expected to teach in either or both of the languages were fluent and literate, some extreme deficiencies in both were found.

*The present regulations and procedures on teacher language proficiency, as much in English as in the primary languages, should be reviewed and strengthened; there are substantial problems for limited and non-English speaking pupils in some classrooms.*

The number of English reading and writing activities and the structure and appropriateness of the English modeling were associated with differences in the English achievement scores; reading activities in Spanish were associated with the Spanish reading subtest scores. The observed evidence showed that there are substantial deficiencies in the teaching of Spanish reading and the teaching of English as a second language. Teachers complained that they had not been taught how to do either. The combined effects of the language arts skills were sufficient to warrant efforts toward improvement.

*Teacher preparation programs should be encouraged to institute full courses on both subjects since the present arrangement of devoting a few hours to them, either through the combined language arts courses or through inservice, have not produced adequate implementation in many classrooms.*

Exposure to learning has been shown by many researchers to strongly affect achievement. The present study measured learning time compared to non-learning time, and the amount of instructor/pupil interaction. Learning time was found to be associated with differences in the achievement scores, but its contribution to the varying achievement was not as great as for the other instructional variables. Similarly, interaction, as measured in this research, was a marginal contributor to score differences. No conclusion was drawn about either, since some measurement problems were encountered and because some effects, albeit not uniform, were found.

The general conclusion from this study was that achievement varies substantially by several instructional practices and that those practices can be improved. Limited and non-English speaking pupils are more affected by the inadequacies in the instruction than are the fluent English speakers. It may be that some differentials in how those who have not yet acquired enough English are taught need to be introduced into the system. There was strong evidence, however, that strengthening the delivery of educational services to those pupils, whether through the established programs of bilingual or monolingual education, would increase their learning without much innovation. The majority of the teachers in this very large study were efficient, hard working, and effective. The results confirmed that. Their methods and techniques can be learned by the others and substantial learning increases will result.

Finally, some important relationships developed between the results of the satisfaction substudy and those of the investigation into achievement. One of the surprises in the satisfaction research was that most parents and teachers, and many community members, expressed strong support for the services to limited and non-English speaking pupils; some, of course, disagreed. The comparison of the results of the two portions of the research strongly suggests that the amount of satisfaction was engendered from the considerable body of well implemented instructional practices. That is, their judgments about the "programs," as was the case with achievement in them, were more dependent upon implementation than on the kind of program. The dissatisfaction with "too much primary language and not enough English" was borne out through the observations in some of the classrooms. The widespread commitment to bilingual education found through the interviews, while not compared statistically to the better instruction, may well have coincided. There was fairly strong evidence, even though general, that the respondents had judged the operation of the programs and had rated the satisfaction items accordingly. The general coincidence between the findings of the two substudies added confirmation to both.

## AUXILIARY SERVICES

In examining the instructional services provided to LES/NES students, Development Associates also took into account the nature of the auxiliary services associated with these programs. While the instructional practices in the classroom were deemed to be an important source of differences in program effectiveness, the review of auxiliary services yielded some contextual data about program management, program articulation, advisory committees, and parent and community involvement. Similarly, topics such as teacher preparation, district relations with universities and other sources of external assistance were examined in order to further understand potential influences on the programs and their operation.

The investigation was made through questionnaires, open ended interviews, and review of records. These were conducted in district and school offices, state agencies, federal programs, regional assistance projects, and universities. Information on aide and teacher preparation, experience, and inservice training was asked of them directly. Similarly, perceptions on the functioning of advisory committees were obtained from school administrators and from members of the committees.

Several kinds of advisory committees were discovered in the sample districts and schools. For some, a district wide committee with subcommittees for specific purposes, served all the functions. In other districts, each school had its own committee, usually with one member representing the school on a district committee. Most of the declared committees were found to be functioning regularly and those were seen as effective and valuable. In some others, the committee "had not met yet" or evidence for its existence was dubious. Some administrators complained that there were too many regulations about such committees, that too many were required, and that it was difficult to get community participation in them. The members, when they complained, mentioned professional dominance of the committees and/or dominance of the committee by one or another ethnic group. The positive comments centered mainly on the inputs to the school programs, the opportunity to become better acquainted with the school programs, and that the committees served as a forum for discussing community needs.

The data on advisory committees was vague and incomplete, making it difficult to judge much of their functioning. These qualities of the information provided by districts, schools, and committee members led to the following recommendation:

> *If decision makers are confident that there are substantial benefits to be derived from advisory committees, the rules and regulations on them should be reviewed, simplified, and enforced through monitoring.*

The researchers saw one outstanding advisory committee in action, and everyone concerned was convinced that the work of the members and the community involvement they engendered were requisite to the valuable services being rendered by the program. It would appear, then, that districts and schools could institute committees that function to the benefit of the pupils.

General community involvement in the schools appeared to be sporadic and specific to some activity or committee membership. Little information on participation was available and tended to suggest that it was not usually of much assistance to the schools. The methods for obtaining involvement included flyers, letters, media announcements, and hired community involvement aides. One exceptional community involvement effort, combined with the functioning of an advisory committee, was observed in one district: volunteers were always present when the researchers were in the center, performing many valuable tasks, and their advisory committee meeting was attended by quite large numbers considering the size of the small community.

With the exception of the case described under the advisory committee heading, so little of consequence was garnered about community involvement that the generation of a policy issue concerning it was impossible. Development Associates saw the one case of excellent community involvement, including the teaching of children, so it can be achieved in other districts.

The study of the preparation, experience, and inservice of the aides and the teachers in the bilingual and English as a second language programs showed a wide variety of all three. The vast majority of the teachers was appropriately certified for the positions they filled or they were in continuous preparation programs in universities. Some were not, and that was explained by the district's inability to find certificated teachers, by reductions in total staff leading to layoffs of bilingual personnel, and by emergency provisions occasioned by unusual conditions such as rapid increases in the number of pupils needing services. The aides were even more varied in these characteristics; a surprising number had college degrees or had two mor more years of university education. Many, however, had no college credit and did not appear to be pursuing a preparation program. Although many kinds of inservice sessions were listed by the districts, little useful information on these was obtained from the teachers and the aides. Forgetting probably played some part in that, but the rest was attributed to very short treatments of several subjects in a short time, leading the respondents to not recognize the topics listed.

Teacher preparation, as viewed from certification and the years of experience in the appropriate subject, was judged to be progressing well; little evidence of attempts to avoid obtaining certificated personnel was seen. Aide preparation was so varied that it defied categorization except that the hiring of aides for several years in a row when they made no moves toward university

preparation seemed inadvisable. Teachers and aides in many classrooms were observed to be deficient in two subject areas: teaching Spanish reading and teaching English as a second language. Some pronounced deficiencies in both English and the primary language were documented. Two recommendations were generated:

> *State standards for the proficiency in English and the primary language should be examined, remedied if deficient, and monitored.*
>
> *State and district officials, in coordination with the universities, should institute rigorous programs to train teachers and aides how to teach Spanish reading and how to teach English as a second language.*

While the numbers of teachers and aides that were deficient in the languages were not huge, they were large enough to cause considerable concern about the services they could provide to the children. The number of teaching methodology deficiencies was very large, appeared to be severely hindering the implementation of the programs, and could be remedied with some concentrated effort and requirements for their implementation

Districts are expected to establish a continuing liaison relationship with an institution of higher education. A few districts reported very substantial cooperation with a college or university, and those were confirmed in the interviews with the college officials. Most, however, reported that the relationships depended on the initiative of individual teachers and aides to pursue the programs offered at the university, on monies becoming available to pay for services, and on the universities receiving special funds to carry on training. Although there were many problems observed in the schools and classrooms, neither the districts nor the universities, as a generality, seemed to see cooperation as a way to solve them. Development Associates was therefore reluctant to make recommendations about the liaisons or lack of them, except to suggest that those districts and universities with strong relationships should be encouraged and more assistance granted them for the work.

The districts and schools felt well satisfied with the assistance they received from the state offices and suggested that those were about as much as they could be considering the small staffs of those offices. Some dissatisfaction with monitoring being conducted and little information emanating from it was expressed. The assistance from federal programs was much like that found for universities. A few districts and a few of the federal programs in California, and just about as many out of state, were found to have fruitful relationships. The majority, however, knew little about the federal assistance projects and most had received no help from them. This facet did suggest a recommendation:

*Some study of the many federal assistance projects in the state should be done to determine what they do, for whom they do it, and what results are in evidence.*

Similar to the suggestions for the district and university relationships, those that can demonstrate worthwhile assistance and mutual cooperation should be encouraged and aided with funds; the others may not be worth the investment in them. The regional assistance programs also seemed to vary considerably in their perceived worth to the districts. Those that had provided special services to the districts, services which they themselves could not provide within their budget limitations, were perceived as very beneficial. Some others were not always seen as helpful; to the contrary, some were seen as causing problems for some districts, schools, and pupils.

Some unexpected relationships were also found, mutual assistance between districts and other districts, and cooperative activities with two Native American organizations. Most of these efforts were perceived as very helpful by both organizations. The state and federal governments might find some of these arrangements to be cost effective when compared to some of the other projects in existence.

Articulation of the bilingual program with the others in the schools was reported to be very high and to have improved a great deal in the last few years. Most principals and instructors agreed on the articulation success. Some respondents suggested that the consolidated application, school improvement monies, and the economic impact aid combinations had contributed to the improved articulation. Only one program was singled out as divisory and resistant to integration, the migrant program, but not all the districts felt that way. Those that did, however, were enough to suggest that some study into the reported problem is merited.

Finally, although not an intended item for investigation in this study, the researchers were made aware of many duplications of effort in several endeavors. One of these was that in many cases, several agencies and institutions provide almost identical services, or at least are charged with doing so, and many of them concentrate on the same work. Thus, districts and schools may find several organizations seeking cooperation on the same thing. At the same time, this apparently uncoordinated offering of services acted to leave some tasks almost untouched. Further, the duplication was also vividly apparent in the area of research, evaluation, and monitoring. One district had a succession of six teams visiting the schools in a two month period. These two conditions suggested areas for improvement that may take time but that can improve the cost effectiveness and the delivery of services:

*Some mechanism is needed to examine the functions of the many agencies and organizations offering services*

*that are supposed to benefit bilingual education, divide up some of the tasks among them so that all of them are addressed, and provide some means of communicating the existence of products and services to those concerned.*

*A mechanism is also sorely needed that could coordinate some of the research, evaluation, and monitoring being conducted in the schools; one district in this study had never before been visited and some others were visited almost continuously.*

Obviously, some latitude in both areas must be allowed so that providers with certain strengths can concentrate on what they do well. When several organizations in the same geographic area are reportedly doing the same things for the same districts, some redistribution of effort is called for. Similarly, coordination should be able to reduce the myriad investigations being carried out in some districts and schools; the duplication is so serious that some administrators and teachers sincerely felt they had litte time left to teach children. The problem should be addressed soon and thoroughly.

## FINANCE

Development Associates examined the financial resources supporting the provision of instructional services to LES/NES students in California as a substudy of the larger research project. A review of the literature on school finances provided the background for this study. It was found that the provision of bilingual education services in California, as in other states, was affected by a constellation of factors beyond the categorical state and federal funds which affected the nature and extent of financial support given to these programs.

The field study focused on three selected districts, which were purposively chosen on the basis of their geographic location, student enrollment, LES/NES student enrollment, and the variety of funding sources used to provide services to LES/NES students. Five study questions provided the framework for the data collection and analysis. These study questions dealt with the types of funding sources utilized by the districts to support LES/NES services, and the relationship fo these funds to the identified needs of the LES/NES students in each district. Attention was also given to the effects of changes in state funding practices, such as Proposition 13 and the conversion of the state categorical programs to the Economic Impact Aid arrangement, and on district programs for LES/NES pupils. The processes used by the districts in allocating financial resources to the schools were also described. Finally, the finance substudy examined the utilization of state and federal funds at the district and school levels, as well as those factors which appeared to contribute to differential costs in serving LES/NES students.

Several limitations were encountered by Development Associates in carrying out this facet of the research. The most important problem was the pronounced absence of district data on expenditures for services to LES/NES students. Moreover, the quality of the available financial data in the sample districts varied considerably. Consequently, Development Associates was limited in being able to trace specific funds to discrete school programs and classroom practices. In spite of some of these technical limitations, most of the districts and schools surveyed were generally cooperative and did provide the research team with important opinions and insights about the financing of services to LES/NES students and the problems attendant to operating these programs.

Generally the surveyed district and school personnel deemed the state funding of LES/NES services to be fairly adequate. Most indicated that without the state funds the instructional services to these students would be quite low and possibly not provided at all. The designation of specific Economic Impact Aid funds for LES/NES services was viewed as especially significant in ensuring that bilingual programs, and other services, were in fact delivered.

The continuous influx of new LES/NES students throughout the academic year posed serious financial and instructional problems for two of the three districts surveyed by Development Associates. These districts reported that the funds originally allocated to the schools for LES/NES services were inadequate to serve the large number of new eligible students. Though school budgets could be revised, the actual receipt of funds to the school was a slow process, and often too late. As a result of this situation, one district noted that many new NES students had to be placed in regular classrooms.

State and federal support for bilingual programs essentially cushioned the direct impact of Proposition 13 on these services. However, most district officials viewed Proposition 13 as having substantial long term effects on the extent and quality of services provided to LES/NES students. The dramatic changes in the state school financing system produced by Proposition 13 and the reductions in local revenues for districts, according to the officials interviewed, meant that LES/NES programs would eventually be competing with other programs and priorities for limited financial resources.

State categorical funding for LES/NES services was shifted to the Economic Impact Aid mechanism in 1978-79 and made a part of the consolidated application process. Districts generally considered the change to be helpful in combining the various state funding sources. A few problems with the new procedures were noted by districts, but for the most part the transition was relatively efficient.

The formality and definition of district procedures for allocating funds to the respective schools varied among the case study sample schools. The larger districts tended to adopt more formal methods of involving school personnel and parents in the planning and budgeting decisions. Smaller districts relied on more informal methods. By and large decisions about school allocations were centralized and generally made at the district office level.

It was difficult for the investigators to clearly ascertain how state funds were utilized in relation to specific instructional services for LES/NES students without data on expenditures. For the most part, state funding sources such as EIA, SCE, and SIP were collectively used to defray costs for instructional personnel, educational aides, and teacher assistants for the bilingual programs. These funds also purchased specialized personnel such as Spanish language teacher and reading specialists. Lesser amounts had been allocated for instructional materials and equipment. Primarily, these funds were concentrated on obtaining teaching personnel for the programs.

Per pupil cost estimates provided by the sample districts ranged from $270 to $500. The cost at the elementary grades was reported to be higher. Districts cited differences in teachers' salaries, across schools, as one factor that contributed to differential costs in serving LES/NES students. Differences in the equipment

and materials used by a program and/or school also accounted for some of these cost differences. Newer programs had start up expenses which increased their comparative cost to the districts.

The examination of the financial resources supporting instructional services to LES/NES students suggested several areas that have implications for policy makers in planning future state funding mechanisms. At the time that Development Associates conducted the study, districts were not required to maintain records on the expenditure of state LES/NES funds. Inquiries made at the Department of Education's Local Assistance Bureau, which maintains financial data on entitlements to districts, indicated that districts generally report total amounts expended to the state and are not required to provide details on the utilization of the funds. Though districts are monitored by the Department of Education, there was a significant absence of data on how state funds are in fact used in relation to specific programs and bilingual instructional activities.

> *If the Legislature and the Department of Education are interested in determining how funds are being utilized in programs for LES/NES students, provisions should be made for districts to maintain reasonable records on expenditures.*

The influx of new LES/NES students during the academic year posed serious funding and programmatic problems for some districts, often resulting in very large class sizes in the bilingual programs, and in a few instances NES students having to be placed in regular classrooms. Although not a pervasive problem in all districts, the situations cited by some of the case study districts suggested a need for consideration by policy makers.

> *The present procedures for adjusting entitlements to the districts should be reviewed by policy makers. Provisions should be made for expediting additional entitlements to districts that experience a significant influx of new eligible LES/NES students to ensure that these students receive instructional services as required by state legislation.*

Respondents from the sample districts and schools did not cite any specific problems or difficulties with present state funding policies and legislation. On the whole, the state support for services to LES/NES students was seen as filling an important educational need in these communities. Some difficulties were reported with funding application procedures, but these did not suggest any need to amend present policies.

Demographic projections by state and independent organizations forecast an increase in the number of ethnic and racial minority citizens in California over the next decade, which in turn may mean a sizeable group of limited and non-English speaking children entering the public school system. The question of providing the

necessary and appropriate instructional services to these students, and the financial resources for districts to provide such services, will assume paramount proportions for policy makers over the coming years.